



# **National Water Quality Monitoring Council's (NWQMC) 2016 National Water Monitoring Conference**

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and  
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**May 19, 2016**

# National Water Monitoring Conference

## 10th NATIONAL MONITORING CONFERENCE



Working Together for Clean Water

May 2 – 6, 2016

Tampa, Florida



NWQMC

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### 10th National Monitoring Conference

Tampa, Florida, May 2 - 6, 2016

Sponsored by the National Water Quality Monitoring Council (NWQMC), the 2016 conference was located on the banks of the Hillsborough River at the edge of Tampa Bay.

#### Conference Awards

- Elizabeth Jester Fellows Award Recipient:  
[William G. "Bill" Wilber, USGS \(ret.\)](#)
- Barry Alan Long Award Recipient:  
[Faith Zerbe, Delaware Riverkeeper](#)
- Vision Award Recipient:  
[Georgia Adopt-A-Stream](#)



# General Information

- 707 participants
- Presentations, posters, panels, workshops, demos, exhibitors & training
  - Agenda at a Glance (*handout*)
- Presentations/posters available on Council's website this summer
  - <http://acwi.gov/monitoring/index.html>
- Suggestions welcomed for conference presentations/demos as future National Council webinars or NJ Council agenda items

# Highlighted Themes/Topics

- **Cyanobacterial Harmful Algal Blooms (HABs)/Toxins** – prediction, detection & assessment. HABs coming earlier/more frequently/lasting longer
- **New Data Tools - Discovery, Retrieval, Analysis, and Management** – many R-based, re: Water Quality Portal
  - The data Retrieval, EGRET – **E**xploration & **G**raphic for **RivEr** **T**rends (Bob Hirsch, USGS)
  - Using **W**eighted **R**egression on **T**ime, **D**ischarge & **S**eaSon (WRTDS) for Trends Analyses (Bob Hirsch)
  - Water Quality Portal Strategy
- **Technology** –sensors, continuous monitoring, remote sensing, drones, citizen science crowd sourcing (smart phones, test strip screening, Bloom Watch/Cyanoscope)

# Highlighted Themes/Topics (cont)

- **Monitoring Designs** – Import of linking design to key questions, NWQMC design factsheets (probabilistic, targeted, fixed, rotating basin), Probabilistic Design & Analysis workshop – Tony Olsen, EPA
- **Nutrients** – monitoring, trends, nutrient reduction effectiveness, relation to HABs
- **Long-term Data Set Needs** – trends
- **Contaminants of Emerging Concern** (e.g., pharmaceuticals, PFAs (perfluoroalkyl substances), pesticides, microplastics) – need for indicators

# Highlighted Themes/Topics (cont)

- **Pathogens** – variability, need for multiple year sampling
- **Biological Monitoring** – methods comparisons, use of EPA NARS biological survey data
- **Communication of Water Quality Results** – Visualizing Water Quality, NWQMC Factsheet – *Water Quality Indicators, Report Cards and Multi-Metric Portals*

# Highlighted Themes/Topics (cont)

- **Volunteer Monitoring** – managing & sharing volunteer data, new NWQMC Volunteer Monitoring charter & workgroup
- **Call to “Connect Monitoring to Outcomes, not Exposure”** – EPA adverse outcome pathway approach coming soon

# Council Organization &/or NJ-related Participants

## ***Presentations***

- *Advanced Techniques for Automated State-wide Surface Water Quality Assessment for 305(b) Reporting* – Jack Pflaumer (DEP/DWM&S)
- *Benefits of Open Federal Data to State Programs* – Jack Pflaumer
- *Advanced Techniques for Automated State-wide Surface Water Quality Assessment Using "R"* - Jack Pflaumer
- *Enhancing Data Interpretation in the Delaware River Basin Using "R"* - Bob Limbeck (DRBC)
- *(Nutrient) Trends in WQ in NJ Streams During Water Years 1971-2011* – Bob Hirsch & Ward Hickman (USGS)



# Council Organization &/or NJ-related Participants

## ***Presentations (cont)***

- *Naturally Occurring Radionuclides in Water from Bedrock Aquifers, Northern NJ* – Zolton Szabo (USGS NJWSC)
- *Phytoplankton Reference Communities & Index of Biotic Integrity for BB-LEH Estuary* - Ling Ren (ANSDU)
- *Designating Coastal Restoration Monitoring Program for Citizen Scientists* – Danielle Donkersloot (DEP/CLUP)
- *Workshop: Effective Science Communication* – Danielle Donkersloot

# Council Organization &/or NJ-related Participants

## *Posters*

- *Building Collaboration & Continuous Monitoring Data Exchange Through a State WM Council* – Alena Baldwin-Brown, Leslie McGeorge, Bob Reiser (DEP/DWM&S & USGS NJWSC) (poster + handout)
- *Assessment of WQ Condition Within BB Using Data Collected 2008-2013* – Helen Pang, Leslie McGeorge, Jack Pflaumer (DEP/DWM&S) (poster + handout)
- *Assessment of Measureable WQ Changes in Lower Delaware River Special Protection Waters* – Bob Limbeck (DRBC)